

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-095-02773 County TYLER District CENTERVILLE
Quad WEST UNION Pad Name SHR37 Field/Pool Name _____
Farm name CNX GAS COMPANY LLC Well Number SHR37PHSM
Operator (as registered with the OOG) CNX GAS COMPANY LLC 494458046
Address 1000 HORIZON VUE DRIVE City CANONSBURG State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4356023.120 Easting 513288.926
Landing Point of Curve Northing 4355848.947 Easting 513486.472
Bottom Hole Northing 4352728.765 Easting 514712.447

Elevation (ft) 828' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
SYNTHETIC BASED FLUID
ADDITIVES: ABS MUL (EMULSIFIER), CALCIUM CHLORIDE, FLR PLUS (GILSONITE), CLAYTONE EM (SUSPENSION AGENT), AES WA II (WETTING AGENT), LIME

Date permit issued 12.16.2021 Date drilling commenced 05.24.2022 Date drilling ceased 06.04.2022
Date completion activities began 07.30.2022 Date completion activities ceased 09.18.2022
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 92', 126', 144', 148', 150', 176', 220' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,748' 2,458' Void(s) encountered (Y/N) depths N
Coal depth(s) ft No mineable seams; trace @ 154', 526', 618', 955', 992, 1044. Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:


03/17/2023

WR-35
Rev. 8/23/13

API 47-095 - 02773 Farm name CNX GAS COMPANY LLC Well number SHR37PHSM

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	20"	100'	NEW	94 lb/ft	N/A	GROUT TO SURFACE
Surface	17.5"	13.375"	363'	NEW	J-55 54.5 lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	12.25"	9.625"	5,216'	NEW	J-55 36 lb/ft	N/A	Y - CEMENT TO SURFACE
Intermediate 2							
Intermediate 3							
Production	8.5"	5.5"	17,871'	NEW	P-110RY 20 lb/ft	N/A	Y - TOC @ 4,251'
Tubing							
Packer type and depth set		Mechanical 2,640'					

Comment Details ALL DEPTHS ARE REFERENCE TO GROUND LEVEL (-28' KB)

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	READY MIX	10 YARDS					
Surface	HALCEM	295	15.8	1.17	345	SURFACE	8
Coal							
Intermediate 1	HALCEM / HALCEM	695 (1st) / 850 (2nd)	15.8 / 15.8	1.20 / 1.15	834 / 978	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	EXP NEOCEM / NEOCEM	1,025 (L) / 3,080 (T)	15.0 / 15.0	1.07 / 1.07	1,097 / 3,296	4,251'	8
Tubing							

Drillers TD (ft) 17,904' (MD @GL) Loggers TD (ft) 17,904' (MD @GL)
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5,582' (MD @GL)

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____
SURFACE = 4 Centralize every other joint from shoe to surface
INTERMEDIATE = 61: Centralize every other joint from shoe to surface
PRODUCTION = 387: Centralize every joint from shoe to TOC

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS plug and perforation

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED

03/17/2023

API 47- 095 - 02773 Farm name CNX GAS COMPANY LLC Well number SHR37PHSM

PERFORATION RECORD

Stage No	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMENT	1		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
		SEE	ATTACHMENT	2				

Please insert additional pages as applicable.

[Handwritten Signature]
03/17/2023

API 47- 095 - 02773 Farm name CNX GAS COMPANY LLC Well number SHR37PHSM

PRODUCING FORMATION(S)	DEPTHS	
MARCELLUS (landing point)	6,286' (@GL) TVD	6,789' (@GL) MD
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1650 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 7116.90 mcfpd Oil 74 bpd NGL _____ bpd Water 630 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	0		0		
					FORMATION LOG ATTACHED

Please insert additional pages as applicable.

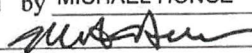
Drilling Contractor PATTERSON UTI DRILLING
Address 100 GALLAWAY DRIVE City EIGHTY FOUR State PA Zip 15330

Logging Company SCHLUMBERGER
Address 3600 BRIARPARK DRIVE City HOUSTON State TX Zip 77042

Cementing Company HALLIBURTON
Address 1000 NOBLE ENERGY DRIVE, SUITE 400 City CANONSBURG State PA Zip 15317

Stimulating Company EVOLUTION WELL SERVICES
Address 1780 HUGHES LANDING BLVD., SUITE 125 City THE WOODLANDS State TX Zip 77380

Please insert additional pages as applicable.

Completed by MICHAEL HONCE Telephone 304-406-3909
Signature  Title Superintendent Completions Operations Date 11/3/2022

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

SMV
2/13
03/17/2023

API:4709502773

CNX RESOURCES LLC

WELL NAME: SHR37PHSM

All depths are referenced to GLE

LITHOLOGIES

LITHOLOGY / FORMATION NAME	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC)
UNDIFFERENTIATED SAND	0	446	0	446	SANDSTONE / TRACES OF SILTSTONE & LIMESTONE & COAL
HARLEM COAL	446	449	446	449	COAL
UNDIFFERENTIATED SAND & SILTSTONE	449	1,611	449	1,611	SANDSTONE / TRACES OF GRAY SHALE, COAL, QUARTZ & SILTSTONE
BIG LIME	1,611	1,731	1,611	1,731	LIMESTONE / TRACES OF SILTSTONE
KEENER SHALE	1,731	1,921	1,731	1,921	SANDSTONE & SHALE
UNDIFFERENTIATED SAND & SILTSTONE	1,921	2,121	1,921	2,121	SANDSTONE & LIMESTONE / TRACES OF SILTSTONE
BEREA SAND	2,121	2,211	2,121	2,211	SANDSTONE / TRACES OF SILTSTONE & PYRITE
GORDON SAND	2,211	3,118	2,211	3,120	SANDSTONE / TRACES OF SILTSTONE & PYRITE
WARREN SAND	3,118	3,188	3,120	3,191	SANDSTONE AND SILTSTONE
UNDIFFERENTIATED SHALE	3,188	4,711	3,191	4,988	GRAY SHALE
BENSON	4,711	4,899	4,988	5,246	SANDSTONE
ALEXANDER	4,899	5,014	5,246	5,361	SANDSTONE AND SILTSTONE
UNDIFFERENTIATED SHALE	5,014	5,675	5,361	6,231	GRAY SHALE
CASHQUA	5,675	6,082	6,231	6,181	GRAY SHALE
MIDDLESEX	6,082	6,127	6,181	6,250	GRAY SHALE / TRACES OF SILTSTONE
WEST RIVER	6,127	6,193	6,250	6,376	GRAY SHALE
BURKET SHALE	6,193	6,228	6,376	6,466	BLACK SHALE, GAS SHOW
TULLY LIMESTONE	6,228	6,249	6,466	6,539	GRAY SHALE
HAMILTON SHALE	6,249	6,263	6,539	6,619	GRAY SHALE & LIMESTONE
UPPER MARCELLUS SHALE	6,263	6,270	6,619	6,668	BLACK SHALE
MIDDLE MARCELLUS SHALE	6,270	TD	6,668	TD	BLACK SHALE, GAS SHOW
TD - MARCELLUS		6269		17,894	

SHR37PHSM - PERFORATION RECORD - ATTACHMENT 1					
Stage No.	Perforation Date	Perforated From MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	7/23/2022	17,736.0	17,840.8	24	Marcellus Shale
2	8/3/2022	17,487.1	17,673.9	40	Marcellus Shale
3	8/4/2022	17,256.1	17,442.9	40	Marcellus Shale
4	8/4/2022	17,025.1	17,211.9	40	Marcellus Shale
5	8/4/2022	16,794.1	16,980.9	40	Marcellus Shale
6	8/4/2022	16,563.1	16,749.9	40	Marcellus Shale
7	8/5/2022	16,332.1	16,518.9	40	Marcellus Shale
8	8/5/2022	16,101.1	16,287.9	40	Marcellus Shale
9	8/5/2022	15,870.1	16,056.9	40	Marcellus Shale
10	8/5/2022	15,639.1	15,825.9	40	Marcellus Shale
11	8/5/2022	15,408.1	15,594.9	40	Marcellus Shale
12	8/6/2022	15,177.1	15,363.9	40	Marcellus Shale
13	8/6/2022	14,945.2	15,132.8	40	Marcellus Shale
14	8/6/2022	14,713.2	14,900.8	40	Marcellus Shale
15	8/6/2022	14,481.2	14,668.8	40	Marcellus Shale
16	8/7/2022	14,249.2	14,436.8	40	Marcellus Shale
17	8/7/2022	14,025.9	14,199.1	40	Marcellus Shale
18	8/7/2022	13,811.9	13,985.1	40	Marcellus Shale
19	8/8/2022	13,597.9	13,771.1	40	Marcellus Shale
20	8/8/2022	13,383.9	13,557.1	40	Marcellus Shale
21	8/9/2022	13,170.8	13,343.2	40	Marcellus Shale
22	8/9/2022	12,957.8	13,130.2	40	Marcellus Shale
23	8/9/2022	12,744.8	12,917.2	40	Marcellus Shale
24	8/9/2022	12,531.8	12,704.2	40	Marcellus Shale
25	8/10/2022	12,299.9	12,481.1	40	Marcellus Shale
26	8/10/2022	12,075.9	12,257.1	40	Marcellus Shale
27	8/11/2022	11,851.9	12,033.1	40	Marcellus Shale
28	8/11/2022	11,627.9	11,809.1	40	Marcellus Shale
29	8/11/2022	11,403.9	11,585.1	40	Marcellus Shale
30	8/12/2022	11,179.9	11,361.1	40	Marcellus Shale
31	8/12/2022	10,955.9	11,137.1	40	Marcellus Shale
32	8/12/2022	10,731.9	10,913.1	40	Marcellus Shale
33	9/14/2022	10,507.9	10,689.1	40	Marcellus Shale
34	9/14/2022	10,283.9	10,465.1	40	Marcellus Shale
35	9/14/2022	10,059.9	10,241.1	40	Marcellus Shale
36	9/14/2022	9,835.9	10,017.1	40	Marcellus Shale
37	9/14/2022	9,611.9	9,793.1	40	Marcellus Shale
38	9/15/2022	9,387.9	9,569.1	40	Marcellus Shale
39	9/15/2022	9,163.9	9,345.1	40	Marcellus Shale
40	9/15/2022	8,939.9	9,121.1	40	Marcellus Shale
41	9/15/2022	8,715.9	8,897.1	40	Marcellus Shale
42	9/16/2022	8,491.9	8,673.1	40	Marcellus Shale
43	9/16/2022	8,267.9	8,449.1	40	Marcellus Shale
44	9/16/2022	8,043.9	8,225.1	40	Marcellus Shale
45	9/16/2022	7,819.9	8,001.1	40	Marcellus Shale
46	9/17/2022	7,595.9	7,777.1	40	Marcellus Shale
47	9/17/2022	7,371.9	7,553.1	40	Marcellus Shale
48	9/17/2022	7,147.0	7,329.0	40	Marcellus Shale
49	9/17/2022	6,922.0	7,104.0	40	Marcellus Shale
50	9/17/2022	6,697.0	6,879.0	40	Marcellus Shale

03/17/2023 

SHR37PHSM - STIMULATION INFORMATION PER STAGE - ATTACHMENT 2

Stage No.	Stimulations Date	Ave Pump Rates (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/Other (units)
1	7/30/2022	82	8,716.00	6,351.00		387,617.30	7,999.98	N/A
2	8/3/2022	99	8,760.00	6,857.00	4,317.00	399,139.10	21,673.98	N/A
3	8/4/2022	96	9,025.00	7,252.00	4,767.00	341,004.30	6,623.69	N/A
4	8/4/2022	97	9,006.00	6,877.00	5,234.00	388,936.60	6,952.00	N/A
5	8/4/2022	96	8,768.00	7,171.00	4,676.00	409,036.80	6,951.71	N/A
6	8/4/2022	97	8,731.00	6,678.00	4,456.00	390,785.60	6,920.57	N/A
7	8/5/2022	90	8,654.00	6,867.00	4,289.00	384,879.10	6,712.50	N/A
8	8/5/2022	92	8,625.00	6,705.00	4,004.00	404,020.70	6,862.14	N/A
9	8/5/2022	98	8,984.00	6,952.00	4,561.00	397,892.90	8,720.81	N/A
10	8/5/2022	98	8,668.00	6,897.00	4,218.00	398,481.30	6,868.74	N/A
11	8/5/2022	98	8,711.00	6,540.00	4,435.00	359,438.60	6,323.05	N/A
12	8/6/2022	91	8,645.00	6,765.00	3,948.00	353,586.20	6,345.88	N/A
13	8/6/2022	97	8,629.00	7,424.00	4,550.00	390,563.50	6,342.50	N/A
14	8/6/2022	100	8,515.00	6,843.00	4,289.00	392,414.70	6,403.12	N/A
15	8/7/2022	99	8,649.00	6,158.00	4,255.00	397,334.10	6,608.67	N/A
16	8/7/2022	100	8,747.00	6,343.00	4,012.00	404,480.40	6,399.21	N/A
17	8/7/2022	98	8,561.00	6,091.00	4,616.00	394,826.10	6,437.60	N/A
18	8/8/2022	100	8,439.00	7,143.00	3,638.00	405,177.80	6,344.74	N/A
19	8/8/2022	99	8,596.00	6,007.00	3,635.00	393,845.70	6,190.67	N/A
20	8/8/2022	100	8,431.00	6,355.00	4,335.00	393,520.70	6,190.12	N/A
21	8/9/2022	97	8,845.00	6,272.00	4,829.00	256,332.00	5,618.95	N/A
22	8/9/2022	99	8,450.00	6,476.00	3,910.00	451,038.70	7,188.71	N/A
23	8/9/2022	99	8,410.00	6,656.00	4,060.00	452,074.40	6,770.55	N/A
24	8/10/2022	100	8,321.00	5,945.00	4,798.00	433,736.00	6,725.86	N/A
25	8/10/2022	98	8,656.00	6,578.00	3,898.00	449,553.40	6,530.29	N/A
26	8/10/2022	101	8,504.00	6,440.00	3,705.00	400,194.80	6,429.36	N/A
27	8/11/2022	99	8,642.00	6,423.00	4,399.00	406,584.80	6,107.93	N/A
28	8/11/2022	99	8,246.00	6,730.00	4,283.00	401,839.80	6,136.33	N/A
29	8/11/2022	97	8,548.00	7,013.00	4,244.00	331,427.20	5,812.86	N/A
30	8/12/2022	98	8,584.00	7,646.00	3,838.00	391,769.30	6,059.98	N/A
31	8/12/2022	98	8,310.00	7,220.00	3,778.00	358,633.20	5,815.57	N/A
32	9/13/2022	101	7,925.00	6,917.00	3,857.00	408,539.90	6,774.38	N/A
33	9/14/2022	98	7,970.00	6,085.00	3,800.00	400,706.40	6,575.00	N/A
34	9/14/2022	98	8,010.00	6,534.00	4,156.00	404,276.80	6,368.00	N/A
35	9/14/2022	97	8,338.00	6,226.00	4,696.00	287,432.10	5,761.00	N/A
36	9/14/2022	99	7,913.00	6,222.00	4,635.00	300,127.00	6,015.00	N/A
37	9/14/2022	97	7,792.00	7,095.00	4,166.00	399,351.00	6,199.02	N/A
38	9/15/2022	99	7,879.00	6,485.00	3,870.00	405,590.80	6,199.02	N/A
39	9/15/2022	100	7,742.00	6,450.00	3,996.00	401,216.60	6,101.00	N/A
40	9/15/2022	99	7,535.00	5,945.00	4,233.00	363,272.40	5,871.00	N/A
41	9/16/2022	99	7,589.00	6,292.00	4,000.00	359,987.10	6,003.98	N/A
42	9/16/2022	100	7,700.00	6,987.00	4,079.00	407,280.60	6,163.00	N/A
43	9/16/2022	101	7,832.00	6,690.00	3,652.00	409,873.60	7,293.98	N/A
44	9/16/2022	98	7,519.00	6,539.00	3,895.00	378,961.60	6,010.02	N/A
45	9/16/2022	99	7,427.00	6,541.00	3,722.00	402,452.70	6,085.00	N/A
46	9/17/2022	101	7,730.00	6,751.00	4,045.00	400,423.80	6,097.02	N/A
47	9/17/2022	102	7,364.00	6,616.00	3,993.00	400,772.20	6,250.02	N/A
48	9/17/2022	101	7,504.00	6,277.00	3,861.00	392,726.90	6,014.00	N/A
49	9/17/2022	99	7,714.00	5,896.00	3,690.00	366,804.00	6,584.98	N/A
50	9/18/2022	102	7,210.00	6,839.00	4,252.00	396,142.50	6,060.98	N/A

03/17/2023

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/30/2022
Job End Date:	9/18/2022
State:	West Virginia
County:	Tyler
API Number:	47-095-02773-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	SHR37PHSM
Latitude:	39.35355200
Longitude:	-80.84576300
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,286
Total Base Water Volume (gal):	14,246,694
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	CNX	Carrier/Base Fluid	Water	7732-18-5	100.00000	85.55548	None
Sand	US Silica	Proppant	Crystalline Silica in the form of Quartz	14808-60-7	99.90000	14.11656	None
HCL Acid (28%)	CHEMSTREAM	Acidizing	Hydrochloric Acid	7647-01-0	28.00000	0.06128	None
StimSTREAM 9800	CHEMSTREAM	Friction Reducer	Butene, homopolymer	9003-29-6	25.00000	0.01548	None
			Alkanes, C16-20-iso-	90622-59-6	25.00000	0.01548	None
			Ethoxylated alcohols	68213-23-0	3.00000	0.00186	None
CoilSTREAM VB 625	CHEMSTREAM	Gelling Agent	Heavy Aliphatic Naphtha	64742-96-7	60.00000	0.00385	None
			Guar Gum	9000-30-0	50.00000	0.00321	None
			Trade Secret	9043-30-5	5.00000	0.00032	None
			Trade Secret	1338-43-8	3.00000	0.00019	None
			Trade Secret	14808-60-7	3.00000	0.00019	None
Clearal 268	CHEMSTREAM	Biocide					

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			Glutaraldehyde	111-30-8	20.00000	0.00212	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00032	None
			Alkyl dimethyl benzyl ammonium chloride	68391-01-5	3.00000	0.00032	None
StimStream SC 398	CHEMSTREAM	Scale Inhibitor					
			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid) (BHMT)	34690-00-1	10.00000	0.00130	None
ACI-250	CHEMSTREAM	Acid corrosion inhibitor					
			Methanol	67-56-1	45.00000	0.00048	None
			Ethylene glycol	107-21-1	20.00000	0.00022	None
			Trade Secret	72480-70-7	15.00000	0.00016	None
			N,N-Dimethylformamide	68-12-2	10.00000	0.00011	None
			2-Butoxyethanol	111-76-2	5.00000	0.00005	None
Citric Acid 50%	CHEMSTREAM	Iron Control Agent					
			citric acid	77-92-9	50.50000	0.00074	None
Ammonium Persulfate	CHEMSTREAM	Breaker					
			Ammonium Persulfate	7727-54-0	100.00000	0.00044	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Butene, homopolymer	9003-29-6	25.00000	0.01548	
			Guar Gum	9000-30-0	50.00000	0.00321	
			Ethoxylated alcohols	68213-23-0	3.00000	0.00186	
			Trade Secret	9043-30-5	5.00000	0.00032	
			Alkyl dimethyl benzyl ammonium chloride	68391-01-5	3.00000	0.00032	
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00032	
			Ethylene glycol	107-21-1	20.00000	0.00022	
			Trade Secret	14808-60-7	3.00000	0.00019	
			Trade Secret	1338-43-8	3.00000	0.00019	
			Trade Secret	72480-70-7	15.00000	0.00016	
			N,N-Dimethylformamide	68-12-2	10.00000	0.00011	
			2-Butoxyethanol	111-76-2	5.00000	0.00005	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

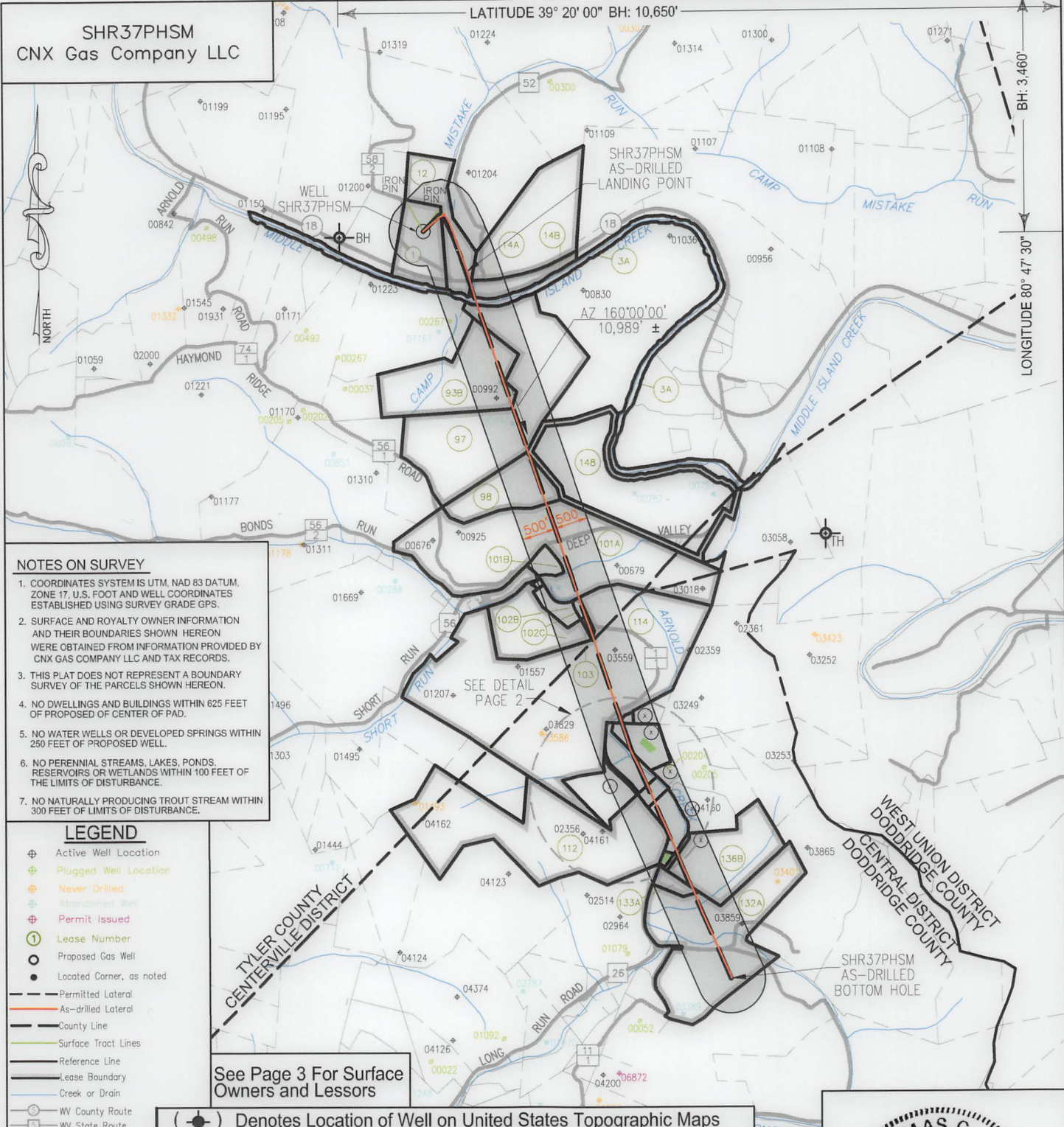
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

LATITUDE 39° 22' 30"

TH: 3,515'

LATITUDE 39° 20' 00" BH: 10,650'

SHR37PHSM
CNX Gas Company LLC



NOTES ON SURVEY

1. COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE OBTAINED FROM INFORMATION PROVIDED BY CNX GAS COMPANY LLC AND TAX RECORDS.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
6. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

LEGEND

- Active Well Location
- Plugged Well Location
- Never Drilled
- Abandoned Well
- Permit Issued
- Lease Number
- Proposed Gas Well
- Located Corner, as noted
- Permitted Lateral
- As-drilled Lateral
- County Line
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

See Page 3 For Surface Owners and Lessors

(●) Denotes Location of Well on United States Topographic Maps



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

Thomas C. Smit
L. L. S. 687



SEAL

FILE NO:
DRAWING NO:
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: SG-GPS (OPUS)



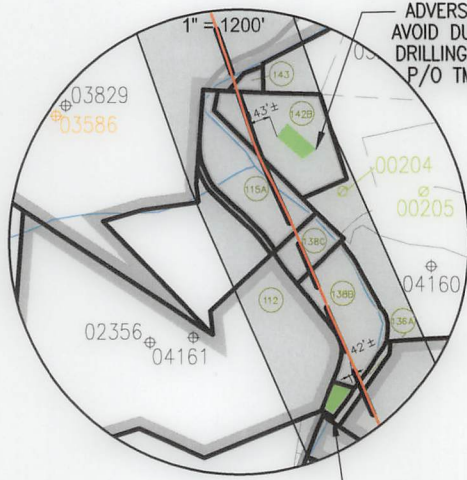
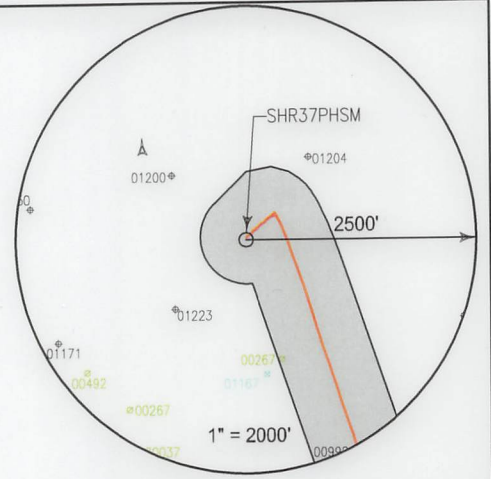
DATE: AUGUST 09 20 22
OPERATORS WELL NO: SHR37PHSM
API WELL NO
47 - 095 - 02773
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION ELEVATION: 828' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union, WV 7.5'
DISTRICT: Centerville COUNTY: Tyler
SURFACE OWNER: CNX Gas Company LLC ACREAGE: 18 ±
ROYALTY OWNER: Eleanor V. & Dean A. Earnheart, et al. LEASE NO: 269278000 ACREAGE: 720.525 ±
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD: 6,302'

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Anthony Kendziora
ADDRESS: 1000 Consol Energy Drive ADDRESS: 1000 Consol Energy Drive
Canonsburg, PA 15317 Canonsburg, PA 15317

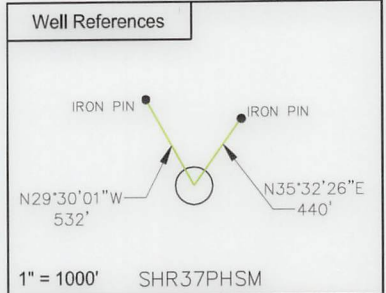
AS-DRILLED

SHR37PHSM
CNX Gas Company LLC

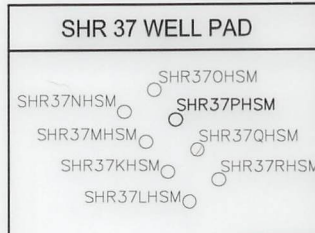


ADVERSE TRACT TO AVOID DURING DRILLING OPERATIONS
P/O TMP 01-2-2

ADVERSE TRACT TO AVOID DURING DRILLING OPERATIONS
P/O TMP 01-2-7



SURFACE HOLE LOCATION (SHL)	
UTM 17 NAD 83	
N:	4356023.120
E:	513288.926
NAD 83, WV NORTH	
N:	313737.102
E:	1587968.225
LAT/LON DATUM NAD 83	
LAT:	39° 21' 12.786"
LON:	80° 50' 44.747"
LANDING POINT	
UTM 17 NAD 83	
N:	4355848.947
E:	513486.472
NAD 83, WV NORTH	
N:	313154.7314
E:	1588606.9378
LAT/LON DATUM NAD 83	
LAT:	39° 21' 07.1248"
LON:	80° 50' 36.5057"



BOTTOM HOLE LOCATION (BHL)	
UTM 17 NAD 83	
N:	4352728.765
E:	514712.447
NAD 83, WV NORTH	
N:	302848.6330
E:	1592459.1485
LAT/LON DATUM NAD 83	
LAT:	39° 19' 25.8377"
LON:	80° 49' 45.5282"



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

Thomas C. Smit
L. L. S. 687



SEAL

FILE NO: _____
DRAWING NO: _____
SCALE: 1" = 1000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: AUGUST 09 20 22
OPERATORS WELL NO: SHR37PHSM
API WELL NO: 47 - 095 - 02773
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION ELEVATION: 828' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union, WV 7.5'
DISTRICT: Centerville COUNTY: Tyler
SURFACE OWNER: CNX Gas Company LLC ACREAGE: 183
ROYALTY OWNER: Eleanor V. & Dean A. Earnheart, et al. LEASE NO: 269278000 ACREAGE: 720.525 ±
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD: 6,302'

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Anthony Kendziora
ADDRESS: 1000 Consol Energy Drive ADDRESS: 1000 Consol Energy Drive
Canonsburg, PA 15317 Canonsburg, PA 15317

03/17/2023

AS-DRILLED

SURFACE OWNER		LESSOR	PIN
1	CNX Gas Company LLC	Nancy P. McLain and Ralph E. McLain Pursie E. Pipes and Norma J. Pipes Bradie Pipes and Goldie Pipes Georgia P. Snyder Agnes Godwin a/k/a Georgia Agnes Godwin Luella I. McConnell Clella Boice Eleanor V. Earnheart and Dean A. Earnhart Dorothy Belle Wells and Byron Wells Myrna Morgan and David Morgan	1-17-5
3A	West Virginia Division of Natural Resources	West Virginia Division of Natural Resources	Middle Island Creek
12	Gail Williamson	Lillie M. Shepherd	1-17-6
		Allegheny Land and Mineral Company The Union National Bank as Trustee for Truman E. Gore and C. Burke Morris, u/a dtd. 8/25/1966	
14A	Danny & Patricia Harris	Nancy P. McLain and Ralph E. McLain	1-18-6.1
		Pursie E. Pipes and Norma J. Pipes Bradie Pipes and Goldie Pipes Georgia P. Snyder Agnes Godwin a/k/a Georgia Agnes Godwin Luella I. McConnell Clella Boice Eleanor V. Earnheart and Dean A. Earnhart Dorothy Belle Wells and Byron Wells Myrna Morgan and David Morgan	
14B	William D Lantz & Paula T Lantz Riki Nicole Riley William R. Doll	Nancy P. McLain and Ralph E. McLain	1-18-6 1-18-6.2 1-18-6.3
		Pursie E. Pipes and Norma J. Pipes Bradie Pipes and Goldie Pipes Georgia P. Snyder Agnes Godwin a/k/a Georgia Agnes Godwin Luella I. McConnell Clella Boice Eleanor V. Earnheart and Dean A. Earnhart Dorothy Belle Wells and Byron Wells Myrna Morgan and David Morgan	
97	Ryan Davis & Carrie L. Davis Ryan & Carrie L. Davis	Pearl I. Slack	1-17-15 1-18-7
		Norma Long	
93B	Ryan Davis & Carrie L. Davis	Ancel Doak and Flora Doak, H/W Goldie McKittrick, widow	1-17-15
98	Elden L Pratt, Dean Rodney & Timothy Ray Pratt	Beverly Ann Underwood	1-17-11
		Barbara McClain Yale University Tina Marie Vickery fka Tina Marie Greenwood Cheryl Denise Ismert fka Cheryl Denise Cole Shari Greenwood Gary Lee Greenwood Randall Allen Pratt Chad Greenwood AMP Fund III, LP Mary Ann Webster, Trustee of the Webster Living Trust, dated December 19, 2001	
101A	Ralph Paul McCutchan (Life)	Margaret C. Nied	1-18-11
		Helen C. Dahle James P. Cullinan Mary C. Schilling Trust - 2010, by Keith Schilling, Trustee William Paul McCutchan and Virginia B. McCutchan Kathleen Bradford Upton William Warren Upton and Frances J. Upton, H/W Marie L. Bradford, widow and heir under the Last Will and Testament of James Perry Bradford	
101B	Ralph Paul McCutchan	Margaret C. Nied	1-18-11.1
		Helen C. Dahle James P. Cullinan March C. Schilling Trust - 2010, by Keith Schilling, Trustee William Paul McCutchan and Virginia B. McCutchan Kathleen Bradford Upton William Warren Upton and Frances J. Upton, H/W Marie L. Bradford, widow and heir under the Last Will and Testament of James Perry Bradford	
102B	William J Stanley	Planters Bank, Trustee for Franklin L. Butler IRA under agreement dated 9/10/1991	1-18-10
		Edward Mullooly Robert E. Burgess, Sr. and Barbara Burgess, h/w	
102C	Arnolds Creek Christian Church William J Stanley	Planters Bank, Trustee for Franklin L. Butler IRA under agreement dated 9/10/1991	1-18-9 1-18-10
		Edward Mullooly Robert E. Burgess, Sr. and Barbara Burgess, H/W Trustee of the Arnold's Creek Christian Church	
103	Richard McCullough	J&N Management Enterprises, LLC	1-18-10.1
112	Lonnie C. James	Lillie M. Shepherd	1-2-5
		Allegheny Land and Mineral Company The Union National Bank as Trustee for Truman E. Gore and C. Burke Morris, u/a dtd. 8/25/1966	
114	Victor Goff Stinespring, Charter D. Stinespring Victor Stinespring et ux	Sonya Rickel and Joe Rickel Jr. W/H	1-2-1 1-2-1.2
		Charlotte Bryant and Ervin Bryant, W/H Garrett G. Pyles Janice Phelps and Harry Phelps, W/H Robert F. Pratt and Glenna Z. Pratt, H/W Kenneth E. Pratt and Laura L. Pratt, H/W Janet P. Tinkham and Elwin I. Tinkham, W/H Allen Pratt and Patricia Pratt, H/W Jean Cole and Robert L. Cole, W/H Dorothy A. Greenwood and Malcolm Greenwood, W/H Margaret R. Mead and Richard F. Mead, W/H Mary J. Borer and Donald E. Borer, W/H Kenneth M. Wagner and Mary A. Wagner, H/W John Paladino Patty Lou Fox and Harry R. Fox, W/H Robert D. L. Doak Ida Bower	

03/17/2023

SURFACE OWNER	LESSOR	PIN
	Jack Coffindaffer and Janice Lee Coffindaffer, H/W	
	Esther Doak	
	Virginia McBee and Robert McBee, W/H	
	Karen Y. Meiter and Robert Lynn Meiter, W/H	
	Paul Wagner and Joan Wagner, H/W	
	Leona Smith and John Smith, W/H	
	Sylvia Knowleton and Clee Knowleton, W/H	
	Ruth M. Hubbard	
	Ina M. Wagner	
	Juliana M. Moore	
	Gussie Devoll	
	Martha Moore Hanson and Peter S. Hanson, W/H	
	Vonda Wagner	
	Wayne Kellar and Peggy Kellar, H/W, aka Wayne Kellar and Margaret H. Kellar, H/W	
	Catherine Moore	
	C. H. Wagner and Olive Irene Wagner, H/W	
	Darryl Pratt	
	Mary D. Southern	
	Wilda Doak	
	Beverly Delancey and Eleanor Knight and Stanford Knight, W/H and James W. Ash and Hazel Ash, H/W, Lelia Washburn, Charlene Smith and George Smith, W/H, and Barbara Thalrose and Harold Thalrose, W/H	
	Theresa Pratt	
	Sherry Lynn Quay	
115A Gary R Furby	C. Lynn Curran	1-2-2.1
	John Clifton Dowdy	
	Terri Kathleen Corathers Arbogast	
	April Suzanne Corather Wallace	
	Joy L. Cottrill	
	Carl Jackson Smith	
	Judith Ann Gierman	
	Karin A. Reddert	
	Laura Jean Houseman	
	Michael Dale Rogers	
	Mark Allen Rogers	
	Lyle Vance Rogers	
	John Cochran	
	Steven D. Cochran	
	Alan Long	
	Ryan Wendel	
	Gary Eugene Criner	
	Jeremi Lyn Criner	
	Sharon Lee Criner Griffith	
	Cinda Lou Criner Lanham	
	Jonathon L. Criner	
	Gregory M. Smith	
	Gwendolyn S. Neville	
	Catherine A. Mark	
	John W. Casto	
	Charles Larry Cottrill	
	Cindy K. White	
	Cathleen Shultz	
	Lois A. Arcuri	
	Kenneth Clinton Cottrill	
	Colin D. Goddard	
	Robert C. Goddard	
	Bonnie C. Persohn	
	Addie Marie Leadmon	
	James A. Cottrill	
	William C. Montgomery	
	Mary Lou Dawson	
	Rella M. Dawson	
	Glenn H. Montgomery	
	John C. Montgomery	
	Barbara Kay Montgomery	
	Benjaimen Jacob Criner	
	Richard P. Criner	
	Clifford Warren Montgomery	
	Tricia Lynn Howard	
	Jeffrey David Montgomery	
	Scott Eric Montgomery	
	Skylar Ora Montgomery	
	Kendra K. Wyke	
	Robert W. Pernell	
	Marilyn K. Pernell	
	Sandra L. Shirey	
	Kimberly Ann Barnes	
	Michael A. Barnes	
	Randy Lee Barnes	
	Karen Sue Kinder	
	Sherry Barker	
	Harry Griffith	
	Larry Griffith	
	Lisa Meeks	
	Connie Metz	
	Joseph Smith	
	Richard Walton and Barbara R. Walton	
	Sarah L. Albright	

03/17/2023

SURFACE OWNER	LESSOR	PIN
	Medley Brandl	
	Sarah Bolling	
	Antero Minerals LLC	
	Clydette Sherryl Cowgar, aka Sheryl Clydette Cowgar	
	Kathleen Ann Parrish	
	Delmas McKinney and Wanda R. McKinney, H/W	
	Linda McKinney Mercer	
	Ella Ruth Walton	
	Deward Whitehair, Jr.	
	Evelyn Jean Walton Bailey	
	James L. Hitt	
	Yvonne Elizabeth Roberts, Sole Successor Trustee of the Pursglove Family Trust, dated 2/7/2000	
	Cheryl A. Hampton, fka, Cheryl A. Snyder	
	James Vincent Profaci	
	Diana Louise Pursglove	
	Beverly D. Roy fka Beverly D. Merali and Ian Roy, W/H	
	Debbie Barnes, akaDebbie Summers	
	David Parks and Carla D. Parks H/W	
	Sandra Law	
	Sonja Putnam	
	Peggy Johnson	
	Stephen M. Hiley	
	Isaac Criner	
	Chad W. Johnson	
	James W. Ebbs	
	Carole Hanlon	
	Jane Diane Burrough aka Janie Diane Burrough	
	Michael Dean Walton	
	Anita Jane Spadafora	
	Alice M. Bull	
	Gary Lee Walton	
	Annette Jill Walton aka Annette Jill Naylor	
	Jack Arnold Walton	
	Leonard Francis Cooke Jr.	
	Susan Lee Burns fka Susan Lee Baer	
	James F. Baer	
	Gregory M. Barnes	
	Jake Brandl, aka James J. Brandl	
	Angela Jean Garrison, fka Angela Jean Fittrow	
	Alisa Lynn Profaci	
	William Appleton	
	Arlena Appleton	
	Jared Appleton	
132A	Charlie & Karen M. James	1-4-7
	Ila M. Powell, Dennis H. Powell and Mellie M. Powell, H/W	
	Jerry L. Davis	
	Blanche Ford, widow, Blanche Ford POA for Leman L. Shinn, Thelma McCullough and Corbett McCullough her husband	
	Helen P. Buff	
	Lula L. Backus	
	Clyde M. Shinn	
	Mary Lee Scalf and Robert P. Scalf	
	Betty Jean Dinella and John Dinella, W/H	
	Roy R. Shinn and Evelyn Shinn, H/W	
	Clarence W. Mutschelknaus and Mary F. Mutschelknaus, H/W	
	Charlie James and Karen M. James, JTROS	
	Sue Ann Gillies	
133A	Douglas C James	1-2-8
	Lisa Dawn Mullooly	
	Charles Allen Ford and Ronda Ford, H/W	
	Lisa Joette Chambers	
	James L. Backus	
	Thomas Edward Mullooly, II	
	Kelly Lee Lane fka Kelly Lee Anderson and David P. Lane, W/H	
	Benton Lee Spiker	
	Katherine Louise Del Moral and Jorge R. Del Moral, W/H	
	Dan H. Morgan, II as Trustee for the Dan and Venisa Morgan Living Trust	
	Pamela Kay Atkinson	
	Dennis H. Powell	
	HRHMK Invest LLC	
	Franklin L. Butler	
	Timothy Edwin Spiker and Lesley E. Brunell, H/W	
	Joseph Roy Shinn	
	Gary Woody	
	Douglas C. James	
	Frederick R. Hamilton and Martha A. Hamilton, H/W	
	David Woody and Cynthia L. Woody, H/W	
	Braxton Minerals III	
	Antero Resources Corporation	
	Patricia A. Tudor	
	Joel Bond Gillies	
	Clarence W. Mutschelknaus	
	Pomperaug Capital Investments, LLC	
	Charles David Morgan	
	Robert Russell Morgan	
	Martha Ann Ford McConnell	
	Hao Tran, as POA for Jennifer Tran	
	Andrew Tran	
	Aidan Arney and Elizabeth Arney, H/W	
	Jonathan Gillies	

03/17/2023

SURFACE OWNER		LESSOR	PIN
		George J. Bluff, III	
		J. Charles Buff	
		Adam Jeurissen	
		Robert Wood	
		Curtis Hampton	
		Jessica Hampton	
		Leeman L. Shinn, Jr.	
		Richard Albert Brainard	
		Cameron C. Brainard	
136A	Douglas Carl James	Douglas C. James	1-2-7
136B	Douglas Carl James	Douglas C. James	1-2-7
138B	Lonnie C. James	Margaret Miller	1-2-4
	Danny C. Harris	Margaret Miller	1-2-3
138C	Lonnie C. James	Margaret Miller	1-2-4
	Danny C. Harris	Margaret Miller	1-2-3
142B	Betty Jane Robinson	Dorothy P. Hileman, a/k/a Dorothy A. Pigott, individually and as AIF for Lucia C. Anderson nee Pigott, Carolyn Erambert nee Pigott, and Janet W. Coffmann nee Pigott	1-2-2
143	Betty Jane Robinson	Helen Marie Richards	1-2-2
148	Edwin D Mulvay & Patricia L Mulvay	Edwin Delmer Mulvay and Patricia Vaughn	1-18-13
		Martha C. Price	

03/17/2023